

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
BellSouth Telecommunications, Inc.)	WC Docket No. 03-251
Request for Declaratory Ruling that)	
State Commissions May Not Regulate)	
Broadband Internet Access Services by)	
Requiring BellSouth to Provide)	
Wholesale or Retail Broadband to)	
Competitive LEC UNE Voice)	
Customers)	

COMMENTS OF MCI, INC.

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Pursuant to Section 1.415 of the Rules of the Federal Communications Commission, MCI, Inc. ("MCI") respectfully submits these Comments in response to the *Notice of Inquiry* ("NOI") released March 25, 2005 in the above-captioned matter.¹

I. SUMMARY AND INTRODUCTION

Internet Protocol and broadband are revolutionizing telecommunications. Internet Protocol convergence ("IP convergence") is both building upon and supplanting traditional means of communications, with new, feature-rich, more efficient, and less expensive means of transmitting voice, text, data, and video. These changes call for a new approach to telecommunications regulation, one that accepts that IP-driven means of communications cannot be compartmentalized into traditional notions of intrastate,

¹ BellSouth Telecommunications, Inc. Request for Declaratory Ruling that State Commissions May Not Regulate Broadband Internet Access Services by Requiring BellSouth to Provide Wholesale or Retail Broadband to Competitive LEC UNE Voice Customers, WC Docket No. 03-251, *Memorandum Opinion and Order and Notice of Inquiry*, 20 FCC Rcd. 6830, FCC 05-78 (rel. Mar. 25, 2005) ("NOI").

interstate, incumbent, and similar categories. This new approach should also recognize that traditional communications are being impacted and influenced by IP communications to the point that many aspects of their traditional regulatory classifications are being pushed into irrelevancy.

MCI's Layers framework takes this new reality into account. Unlike traditional and outdated approaches that regulate based on service type, carrier type, network type, and other legacy distinctions, the Layers framework distinguishes between the broadband access platforms required to access IP-based communications and the applications that are delivered over those access connections, and applies different regulatory treatment to each, based on their unique characteristics.

The Layers framework conceptualizes four functional layers or building blocks that exist in modern communications networks. From the bottom up, the first two layers, the Physical Network Layer (the actual physical infrastructure of communications networks) and the Logical Network Layer (the IP and other data network protocols) comprise the Broadband Access Platforms, such as Digital Subscriber Line ("DSL") and cable modem service that end users rely upon to access IP-based services. The next two layers, the Applications Layer (software-enabled end user functionalities and technologies) and the Content Layer (substantive content created by the applications) can be thought of collectively as Advanced End User Applications.

Because of their differing characteristics, the Physical Network Layer and Logical Network Layer raise different policy questions than the Applications Layer and Content Layer. While MCI's Layers framework generally would favor market solutions over regulatory prescriptions, a light regulatory touch may be necessary for the Physical

Network Layer and Logical Network Layer, such as for addressing public safety issues.

The Applications Layer and Content Layer, however, should not be subject to common carrier regulation.

The Layers framework would help create a regulatory environment in which regulatory interference with emerging technologies is limited, and would enhance the forces of robust competition and innovation in the broadband marketplace. At the same time, however, end users in a broadband marketplace have certain expectations. Former Chairman Powell proposed a set of “Net Freedoms,” that recognize that consumers should have the freedom to access content of their choice, run the applications of their choice, attach devices of their choice to the connection in their homes, and receive meaningful information regarding service plans.² The Commission’s broadband policies should recognize and promote those freedoms.

In a robust competitive marketplace, the end user freedoms listed above can be achieved through market forces rather than regulation and providers should have the ability to meet diverse consumer needs and wants while, at the same time, structuring their business plans and product offerings in ways that they deem best for their businesses. As noted above, only a light regulatory touch may be necessary, such as for addressing public safety issues.

To ensure that a competitive and robust broadband market continues to develop, the Commission should adopt pro-competitive policies that enable multimodal

² Remarks of Michael K. Powell, Chairman, FCC at the Silicon Flatirons Symposium on The Digital Broadband Migration, *Preserving Internal Freedom: Guiding Principles for the Industry*, at 4-5 (Feb. 8, 2004) (“*Net Freedoms Speech*”).

competition so that end users can obtain broadband connectivity through as many means as possible, including wireless, satellite, fiber, and Broadband over Power Line, as well as DSL and cable modem. The more widely available multimodal broadband options are, the more end user choice will increase, and end user freedoms will be more consistently attainable. In a competitive broadband marketplace, the Commission should expect to see a diversity of broadband access options available to end users.

II. DISCUSSION

A. The Commission Should Adopt A Layers Framework

As the Commission has previously observed, the rise of the Internet has “fundamentally changed the ways in which [Americans] communicate by increasing the speed of communication, the range of communicating devices, and the platforms over which they can send and receive.”³ These changes have been facilitated by the novel architecture of IP networks. The convergence of services and transmission technologies enabled by IP presents a fundamental challenge to the existing regulatory system, which assumes that particular services are carried over particular transmission technologies. Rather than applying a legacy, outdated regulatory scheme based on carrier type, network type, and service type to these new technologies, the Commission should adopt policies consistent with MCI’s Layers framework.

Fundamental to the Layers approach is the delinking of services from the transmission medium by allowing the public policy issues associated with applications

³ See, e.g., IP-Enabled Services, WC Docket No. 04-36, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 4863, 4869-70, FCC 04-28, ¶ 8 (2004).

and content to be evaluated separately from the public policy issues associated with the underlying physical networks.

Why Layers? Because IP is completely agnostic regarding underlying networks and applications and content delivered over those networks. IP-enabled services are not tied to discrete networks, facilities, technologies, or providers. It therefore makes no sense to attempt to regulate IP-enabled services based upon those legacy distinctions.

Rather, MCI's framework recognizes that all data networks employ a common set of software-defined functional rules or protocols that are not unique to the type of network, or, for that matter, to the type of service offered over those networks. These rules or protocols are designed to create, transmit, and present packets of information to end users. At the lower end of the data network reside the physical transmission facilities. Above them, various interlinked software protocols operate at the upper end of the data network.

The lower end of the network consists of the first two layers, which together can be thought of as Broadband Access Platforms:

- Physical Network Layer: the actual physical infrastructure of data communications networks (wires, cables, airwaves, routers, switches); and
- Logical Network Layer: the Internet Protocol and other data network protocols, which package and transport bits of traffic.

Any regulation of these network layers should be applied with a light touch, in a manner designed to foster robust competition. The Commission should adopt policies that promote competitive opportunities in these layers, and should regulate with only a light touch.

The Broadband Access Platforms – the Physical Network Layer and the Logical Network Layer – are connected to one another, and to the Advanced End User Applications, by software-derived network interfaces. These interfaces – such as customer addressing systems, privacy and security programs, filtering controls, and signaling systems – act as the virtual “glue” that binds the layers together in a seamless fashion.

The upper two layers, comprising Advanced End User Applications, are:

- Applications Layer: software-enabled end user functionalities and technologies (web browsers, email, instant messaging, MP3 software, etc.); and
- Content Layer: substantive content created by the applications (text, speech, music, video, etc.).

The Applications Layer and Content Layer should not be subject to common carrier regulation. In an IP-based environment, the proliferation and survival of innovative applications, services, and content depend not on regulation of the Advanced End User Applications layers, but rather on the ubiquitous availability of Broadband Access Platforms, and the freedom of end users to obtain whatever content they choose over those Broadband Access Platforms.

By conceptualizing the network as four functional layers, or modular building blocks, MCI’s Layers framework recognizes the changed world of telecommunications in an IP-enabled world and the importance of allowing market forces and competition to shape the industry, rather than regulation. In a Layers-based world, all entities generally would be free to compete in and between the different functional layers, and otherwise to engage in vertical integration activities, without legal or regulatory constraints.

The Layers framework advances many important public policy objectives, including:

- relying on well-established and enduring network engineering principles of the Internet;
- avoiding unsupportable legacy distinctions between services, networks, and industries;
- eliminating the differential legal and regulatory treatment of marketplace activities within the same layer;
- appropriately separating upper layers (user applications and content) from lower layers (physical and logical networks);
- providing insights about the interdependence between different layers and connective interfaces; and
- preserving and extending the “innovation commons” of the public Internet.

In short, the Commission can best ensure the continued advancement of IP-enabled technologies and broadband connectivity by adopting a Layers framework.

B. End Users Are Entitled To Certain Fundamental Freedoms With Regard To Broadband

Given the increasing ubiquity and utility of broadband, the Commission should recognize that end users have certain fundamental connectivity expectations, and should act in a manner that protects those expectations as delineated by former Chairman Powell in his *Net Freedoms Speech*.⁴

Broadband has unquestionably become a significant and prevalent aspect of daily life. It is used for all manner of activities, including some that have traditionally been the province of non-Internet technologies. An example of this is VoIP, which uses broadband to enable voice communications. VoIP competition is rapidly increasing, and

⁴ *Net Freedoms Speech* at 4-5.

many VoIP offerings provide features that are comparable to (and in some cases superior to) wireline offerings. Just as consumers have expectations with regard to wireline phone service, they likewise have a set of expectations with regard to broadband access. To promote and protect those expectations, the Commission should recognize the comprehensive nature of broadband and adopt policies that promote the Net Freedoms identified by former Chairman Powell, which recognize that consumers should have the freedom to access content of their choice, run the applications of their choice, attach devices of their choice to the connections in their homes, and receive meaningful information regarding service plans.⁵ The Commission's broadband policies should recognize and promote those freedoms.

Although none of these freedoms or expectations are revolutionary, a sufficiently robust competitive marketplace for broadband services is necessary for end users to exercise them to their full extent.

In a robust competitive marketplace, these end user connectivity freedoms can be achieved through market forces rather than regulation. In a competitive broadband market, providers should be able to meet diverse consumer needs and wants while, at the same time, structuring their business plans and product offerings in ways that they deem best for their businesses. For example, if a broadband provider wishes to provide broadband only as part of a bundle of services, one would expect that other providers would seek to capture the profit associated with stand-alone, unbundled broadband access, by providing that service.

⁵ *Id.*

The effect of the broadband market on consumer choice is already being demonstrated by the offerings of two incumbent local exchange carriers, Verizon and Qwest. Verizon has recently begun offering a stand-alone DSL service that allows customers to cancel their voice service from Verizon, obtain voice service from an independent VoIP provider, and retain their DSL line provided by Verizon. Qwest also offers a stand-alone DSL product and has been doing so for more than a year.

The Commission, then, should take steps to ensure that a competitive and robust broadband market continues to develop. In broad terms, the best way for the Commission to achieve this goal is to adopt and promote policies that enable multimodal competition and remove regulatory impediments so that multimodal broadband options can flourish. These options include wireless, satellite, fiber, and Broadband over Power Line, as well as DSL and cable. Enabling multimodal competition will facilitate greater broadband deployment in numerous ways. For example, certain alternative technologies, such as wireless systems, may be less expensive to build out than DSL and cable, thus better enabling providers to economically justify new deployment in areas that are not densely populated. As multimodal broadband is more widely deployed, end user choice will be increased and end user rights will be more consistently attainable. At most, a light regulatory touch may be needed in a competitive broadband market, such as for addressing public safety issues.

Encouraging multimodal competition may take many forms, and a comprehensive listing of the steps the Commission could take – and an in-depth discussion of those steps – is beyond the scope of these Comments. Of course, the Commission has already taken

certain steps to promote multimodal competition. As a general matter, the Commission should promote the following initiatives and policies:

- To promote the development and deployment of wireless broadband offerings, the Commission should accelerate the availability of additional spectrum for licensed and unlicensed wireless broadband. This should include making more spectrum available and making spectrum auctions less costly. The Commission should explore means to reallocate spectrum to the use of fixed and mobile wireless broadband services, and expand the use and usefulness of unlicensed wireless spectrum to support broadband services.
- Broadband over Power Line offers extraordinary promise – preexisting electrical wiring into virtually every premise to serve as the conduit for a broadband connection – but it is not without its hurdles. The Commission should adopt streamlined rules governing Broadband over Power Line services.
- The Commission could carefully consider, and possibly take preemptive action against, state attempts to regulate broadband services as “traditional” telecommunications utilities.

In sum, the increasing ubiquity and utility of broadband has given rise to specific consumer expectations with regard to broadband, and the Commission should recognize and protect those expectations. Those expectations are attainable without extensive regulation in a truly competitive broadband marketplace. Such a marketplace, which would be defined by multimodal broadband competition, is developing. To encourage its development, the Commission should adopt pro-competitive policies and remove regulatory impediments to multimodal broadband deployment.

III. CONCLUSION

WHEREFORE, THE PREMISES CONSIDERED, MCI respectfully requests that the Commission act in the public interest in accordance with the proposals set forth herein.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Michelle D. Lopez, hereby certify that on this 13th day of June, 2005, copies of the foregoing were served by electronic mail on the following:

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